

PRESS RELEASE

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Improving the transformation process with innovative technologies

Thermoplay, a business within Barnes Molding Solutions strategic business unit, has recently developed a special injector with significant features that make it suitable for the transformation of polymers requiring particular molding conditions.

Thermoplastic materials are constantly evolving, and the challenge of a circular economy drives us to innovate the range of our products in order to offer customers the most appropriate and functional solutions. Thermoplay has introduced a new nozzle developed to rise to the latest market challenge.

Considerable thermal characteristics

The new injector offers an improved thermal profile that enables homogeneity and stability of heat distribution throughout the entire nozzle body. This uniformity maintains a suitable melting temperature and upholds the material's characteristics during processing.

Innovative technology

The tip construction and special design of the valve gate system's pin guide allow less thermal dispersion and greater ease of transformation than the technologies generally used for such applications, including rPET and additional recycled materials.

Suited molding temperatures

Tests performed on the new nozzle revealed that melting temperatures in the hot channel were reduced up to 40° compared to standard injectors.

Applications with special and recycled materials

Recycled materials such as rPET and others are quite sensitive to temperature variations between the mold and the melt temperature. As these materials tend to degrade, it is necessary to lower the Delta T° to minimize this variation.

Increased aesthetic and functional quality of the printed parts

The thermal stability allows optimal control of the process, simplifying the machining within the range of processing parameters. Consequently, the polymer's structural

properties remain intact, and all functional characteristics requirements are preserved. Reinforcing the pin guide near the gate area provides enhanced sliding of the pin, ensuring an aesthetic injection point with optimal mechanical performance.



Hot half for multicavity moulds with special nozzle for rPET materials (© Thermoplay)



About Barnes Molding Solutions

Molding Solutions is a strategic business unit within Barnes Group, which includes highly respected brands in plastic injection molding tooling, hot runners and controls, Synventive, Thermoplay, männer, FOBOHA, Priamus, and Gammaflux. Molding Solutions' comprehensive portfolio of advanced technologies and value-added services delivers premium tool-based solutions where demanding specifications are required by global customers in the plastic injection molding industry across a broad spectrum of applications. For more information, visit www.BGInc.com.

About Barnes Group Inc.

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